LWG
LOWER WILLAMETTE GROUP

Chairperson: Bob Wyatt, NW Natural
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Via Hand Delivery

October 24, 2012

Daniel Opalski
Director, Office of Environmental Cleanup (ECL)
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, Mail Code: ECL-117
Seattle, WA 98101

Re: Lower Willamette Group Reply to EPA Submission
Formal Dispute on EPA Notice of Non-Compliance and Directed Revisions to the Portland Harbor Draft Final Baseline Human Health Risk Assessment and Request for Dispute Resolution
Lower Willamette River, Portland Harbor Superfund Site, USEPA Docket No: CERCLA-10-2001-0240

Dear Mr. Opalski:

EPA's decision, without warning, to completely rewrite the Portland Harbor Baseline Human Health Risk Assessment (BHHRA) to "correct" agreements EPA made with the LWG over several years about the contents of the BHHRA and to find the LWG in violation of the Consent Order is sufficient evidence that the working relationship between EPA and the LWG is broken. The fact that EPA declined to identify to the LWG the specific grounds for the alleged violations for nearly five weeks while it attempted to persuade the LWG to accept its wholesale rewrite of the BHHRA makes this a watershed moment for cooperating parties working with EPA at the Portland Harbor site and beyond. Whether or not EPA's view that "the process actually worked as the AOC was designed"[1] is legally correct, dressing up EPA's change of mind as the performing parties' failure to meet their obligations is not going to get Portland Harbor, or any other site, cleaned up.

We disagree that the Consent Order was designed to support EPA in lulling the Lower Willamette Group into "perceived agreements" just to "keep the RI/FS and risk assessment moving forward."[2] We disagree that the Consent Order was designed to support EPA in seeking stipulated penalties because the LWG supposedly failed to incorporate comments that EPA labeled as "non-directed" when it made them but that EPA now claims we should have understood were actually "directions for change." We think the fact that, out of 223 comments on the draft BHHRA, EPA has complained about only16 LWG responses, all of which are

[1] EPA October 12, 2012 Response, p. 23.
[2] EPA October 12, 2012 Response, p. 22.

unrelated to EPA's stated reasons for rewriting the BHHRA, tells the whole story.[3] We reiterate that the LWG's May 2011 draft final BHHRA used sound science to assess potential risks to human health at Portland Harbor, and EPA has not questioned any of the LWG's calculations or principal conclusions.

But even if the Consent Order gives EPA the unfettered discretion EPA claims, EPA's exercise of that discretion against the LWG in such a punitive manner makes absolutely no sense. Of the 144 potentially responsible parties EPA has thus far identified at Portland Harbor, only the 14 LWG members have made any meaningful attempt to cooperate with EPA on the remedial investigation and feasibility study. We don't understand why EPA thinks it is important to prosecute an enforcement action against the LWG for including the word "generally" in a sentence summarizing the results of a fish consumption survey (text EPA didn't bother to change in its own version of the BHHRA).[4] However, the message EPA is sending to parties who refuse to participate is crystal clear: it's better to stonewall than to cooperate.

To us, it seems that EPA has a clear interest in honoring shared expectations with settling parties and in initiating open dialogue with those parties when problems arise. The significant progress toward agreement on the BHHRA during the informal negotiation period demonstrates that the LWG would have cooperated with EPA in making adjustments to the BHHRA that EPA now believes are necessary. Finalizing the BHHRA through agreement would have been consistent with more than a decade of collaborative effort on the Portland Harbor RI/FS. Vacations and scheduling issues during the informal negotiation period made it challenging to resolve all areas of disagreement during August, but if EPA had been willing to continue talking, we believe the remaining issues would have been resolved in less time than it will take to complete this formal dispute resolution process. EPA's willingness to resolve these issues outside the enforcement context would have conveyed to the dozens of other responsible parties who will ultimately be asked to participate in the cleanup that EPA will work cooperatively with settling parties.

This process is broken. We ask you to drop the enforcement action and encourage EPA staff to move forward in a way that builds trust, comports with baseline due process, and is fundamentally fair to the parties that have spent nearly $100 million on the RI/FS. The LWG shares EPA's priority of protecting human health and the environment through the identification of protective remedies supported by the community. We are part of the solution, not the problem.

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[3] That these complaints include, for example, the LWG's failure to include information in Tables 5-199 through 5-203 that EPA's comment specifically told the LWG to include in Table 5-204 would be comical if the consequences weren't so serious.

[4] *See, e.g.,* Interim Policy on Settlement of CERCLA Section 106(b)(1) Penalty Claims and Section 107(c)(3) Punitive Damages Claims for Noncompliance with Administrative Orders (EPA, September 30, 1997) ("Issuance of this policy is part of an ongoing effort to make the Superfund program fairer for the parties that take responsibility for cleaning up Superfund sites by taking appropriate enforcement action against those parties who are liable and who fail to participate in the cleanup.")

I. The LWG has not violated the Consent Order.

The LWG submitted a technically sound, compliant BHHRA to EPA that was both consistent with the NCP and EPA's previous direction. The most important thing to know about EPA's finding that the LWG violated the Consent Order is that EPA does not rely on even one of the 17 violations it alleged as a reason for its complete rewrite of the BHHRA.[5] Instead, EPA admits that it modified the BHHRA because "the Remedial Project Managers (RPMs) at times through the process may have agreed to a path forward demanded by the Respondents to keep the RI/FS and risk assessment moving forward. However, at the time the full ramifications and consequences of those agreements became apparent in the second draft BHHRA, a correction in course was needed and EPA modified the text of the BHHRA to make those corrections."[6] EPA's determination that the LWG violated the Consent Order is, as EPA says, "separate and distinct"[7] from that "correction in course."

EPA's view is that it can take enforcement action under the Consent Order if, in EPA's sole discretion, it determines that the LWG has failed to "fully" incorporate any EPA comment into a revised deliverable. Although EPA's October 12 response itself states that the June 22 notice of noncompliance was issued because the May 2011 draft final BHHRA "did not fully reflect EPA's directions for changes,"[8] what EPA actually argues in its brief is that comments the EPA identified to the LWG as "non-directed"[9] were in fact "directions for changes."[10] In other words, EPA is saying that although during years of discussions, it has made a distinction between which of its comments were directive and which were not, the LWG should have known that, in the end, all were directive and all would be enforced equally. As an enforcement policy, this position violates the express terms of the Consent Order and raises serious due process questions. And it unquestionably undermines EPA's express commitment to "work cooperatively with settling PRPs to use limited Federal and PRP resources even more effectively to achieve timely and protective site cleanups."[11]

The Consent Order plainly provides that EPA can seek penalties – precisely what EPA is threatening here – only when a revised submittal does not fully reflect EPA's "directions for changes."[12] We have always understood that this is the specific purpose for EPA's practice of

[5] EPA's explanation for its finding of violation has been in flux. EPA's June 22, 2012 notice of noncompliance to the LWG (Tab 16) identified four alleged "deficiencies" and concluded that the LWG had "failed to perform in accordance with the requirements of the Order by failing to fully correct all deficiencies...." On July 27, 2012, EPA advised the LWG that those four "deficiencies" were not the basis for the notice of noncompliance and provided the LWG with a list of 17 other alleged violations (Tab 22). EPA withdrew its complaint about item 11 from the July 27 list in its October 12, 2012 Response (Exhibit 6, page 20).

[6] EPA October 12, 2012 Response, p. 22.

[7] *Id.* at p. 4.

[8] EPA October 12, 2012 Response, p. 4.

[9] EPA September 22, 2010 letter (Tab 10) to Wyatt, p. 2.

[10] EPA October 12, 2012 Response, p. 8 ("'directions for changes' ... logically must be read as an abbreviated restatement of 'correct all deficiencies and incorporate and integrate all information and comments supplied by EPA.'").

[11] Interim Guidance on Implementing the Superfund Administrative Reform on PRP Oversight (EPA, May 17, 2001).

[12] Consent Order, §IX.4.

identifying comments as "directed change"[13] or "EPA direction."[14] Indeed, that is precisely how both parties have outwardly operated over the course of the last ten years. If we are equally at risk for guessing wrong about how to "fully" incorporate any EPA comment no matter how characterized by the agency, why has EPA called to our attention "directed" comments which "will be incorporated" as a priority over comments EPA refers to as "non-directed"?[15]

When EPA provides comments on an LWG document, §IX.1 of the Consent Order requires EPA to meet with the LWG "in an effort to resolve disputes" on EPA comments, modifications, and directed changes.[16] Then, "at EPA's discretion" the LWG must "fully incorporate and integrate all information and comments" supplied by EPA. The "at EPA's discretion" language has no meaning in the absence of EPA identifying to the LWG those changes the LWG must make to produce an acceptable document. As with any agreement, the parties' course of dealing under the Consent Order over many years is persuasive evidence of their joint interpretation of the Order. *See Yogman v. Parrot*, 325 Or. 358, 364, 937 P.2d 1019 (1997). As EPA notes in footnote 11 of the October 12 response, EPA and the LWG meet to attempt to resolve EPA comments, and EPA often "directs" changes where the parties fail to reach agreement on the resolution of a particular comment. Again, this is how EPA and the LWG have actually operated for more than ten years: Indeed, what possible meaning could "directed changes" have if it is not to distinguish directive comments from those that are not directive?

Even if EPA is correct that all comments are equal, regardless of how EPA describes them to us, we must still be able to understand what it is EPA expects us to do with the comment. Due process requires that EPA provide the LWG fair notice of what it needs to do to comply with the Consent Order.

> "The Due Process Clause of the Fifth Amendment to the United States Constitution prohibits a federal agency from enforcing an interpretation of a regulation that is not "ascertainably certain." *General Elec. Co. v. United States EPA,* 53 F.3d 1324, 1328 (D.C.Cir.1995). A regulatory agency supplies fair notice "[i]f, by reviewing the regulations and other public statements issued by the agency, a regulated party acting in good faith would be able to identify, with 'ascertainable certainty,' the standards with which the agency expects parties to conform...." *Id.* at 1329. However, where an agency "provide[s] no pre-enforcement warning, effectively deciding to use a citation [or punishment] as the

[13] EPA July 16, 2010 comments on the September 2009 draft BHHRA (Tab 8). *See also* EPA July 15, 2011 comments on FS Key Elements Check-in Meeting, attached at Tab 50 ("EPA is providing most of the attached comments as directed comments in order to expedite completion of the draft FS report, and to emphasize that these changes are required to produce a draft FS meeting EPA's expectations....").
[14] EPA January 15, 2008 comments on the Comprehensive Round 2 Site Characterization and Data Gaps Analysis Report (Tab 28) ("Category 4: These comments represent EPA direction on the data analysis. EPA expects these changes will be incorporated.")
[15] EPA September 22, 2010 (Tab 10) letter to Wyatt, p. 2.
[16] Notwithstanding EPA's discussion later about the importance of uniform documents and model orders, the "EPA will meet with Respondents in an effort to resolve disputes" language was added to the Consent Order by the LWG and accepted by EPA. *See* Dost email to E McKenna, February 28, 2001, attached at Tab 51.

> initial means for a announcing a particular interpretation," constitutional questions are raised about fair notice to regulated parties. *Id.*[17]

EPA's practice of identifying "directed" and "non-directed" comments over several years has led the LWG to understand that EPA's interpretation of "directed" and "non-directed" is the complete opposite of what it is positing now. Not only did EPA not provide the LWG with "fair notice" that EPA considers all comments equal from an enforcement standpoint, but it took positions that indicated that there was absolutely a distinction between directed and non-directed comments. And even at the level of the comment itself, EPA's direction, for example, that a revision must be made "in the next revision or the final version of the BHHRA as appropriate" does not provide "fair notice" that EPA will consider the LWG in violation of the Consent Order for choosing to make the revision in the final.[18] EPA's direction to include certain information in Table 5-204 does not provide "fair notice" that EPA will consider the LWG in violation of the Consent Order for not also including the information in Tables 5-199 through 5-203.[19]

On page 7 of its October 12 response, EPA admits that it did not provide the LWG with the alleged bases for its finding of non-compliance for over a month after EPA served the LWG with its allegation that the LWG had violated the order, and only after the LWG timely invoked its right to dispute that allegation. Bedrock principles of due process, 40 C.F.R. §22.14(c)(3), and Section 555e of the Administrative Procedures Act, all require a concise statement of the factual basis or grounds for each violation alleged. That EPA declared the LWG in noncompliance without assembling and providing the factual bases for its declaration speaks volumes about EPA's casual attitude toward taking enforcement action against the LWG. In fact, even after providing its compilation of the 17 alleged violations in late July, EPA still communicated to the LWG that these were not necessarily comprehensive and that there might be more.[20] Only later did it decide this list was complete. This practice is also a violation of due process.

Finally, we ask you to look closely at both the significance of the alleged violations and the distance by which EPA alleges we missed the mark in our response. The LWG submitted a sound technical and legal document, consistent with EPA previous revisions and that complies with the NCP and EPA guidance. Out of 223 EPA comments on the May 2011 draft final BHHRA, EPA was able to identify only 17 – now 16 – comments or partial comments where it could manufacture some level of grievance with the LWG's response. As described in Table 3 to the LWG's September 21 opening submission, the LWG addressed all EPA comments in good faith consistent with the agreements reached on EPA comments on the 2009 draft BHRHA. None of the 17 comments relates to the significant revisions EPA has now decided the BHHRA requires. This is not the kind of "substantial noncompliance" on which EPA typically focuses its

[17] *United States v. Hadjuk*, 2005 WL 3237308, (D. Colo 2005). *See also United States v. Approximately 64,695 Pounds of Shark Fins*, 520 F.3d 976, 980 (9th Cir. 2008); *United States v. Hoechst Celanese Corporation*, 964 F. Supp. 967, 979-80 (D. S.C. 1996), *reversed in part on other grounds*, 128 F.3d 216 (4th Cir. 1997).
[18] *See* EPA Basis for Noncompliance (Tab 22), #1.
[19] *Id. See also* EPA October 12, 2012 Response, Exhibit 6.
[20] Cora July 27, 2012 email to Parkinson, attached at Tab 52.

enforcement resources;[21] it is, in fact, of so little consequence that in most cases EPA did not even bother to make in its "directed" version the revision on which it bases its enforcement action. A short summary of the alleged violations shows the trivial nature of EPA's complaints about the LWG's work:

[21] See Ensuring Potentially Responsible Party Compliance with CERCLA Obligations (EPA, November 27, 1996); Guidance on Determining and Tracking Substantial Noncompliance with CERCLA Enforcement Instruments in CERCLIS (EPA, August 24, 2009).

	EPA comment	EPA description of comment	LWG revision based on comment resolution	Basis for EPA noncompliance determination	Did EPA make the revision identified in its July 27, 2012 "basis" memo in its June 22, 2012 directed redline?
1	a) Identify PBDE in Table 5-189 for further evaluation b) Discuss PBDE in risk characterization section of revised or final BHHRA	Directed change	a) PBDE identified in Table 5-204 (formerly 5-187 = the October 2009 draft BHHRA had no Table 5-189) b) PBDE to be discussed in risk characterization section of final BHHRA	a) PBDE should have been included in Tables 5-199 through 5-203. b) PBDE should have been included in risk characterization section of revised BHHRA.	a) No b) No
2	Throughout the text, figures, tables and maps, the phrase "RME Exposure" should be used in place of 95% UCL or Maximum"	Revise, clarify	EPCs were described in a factual manner in the BHHRA (i.e. the EPC was identified as the mean, 95% UCL, or maximum). The terms RME and CT were not used in reference to the EPCs. The titles of the EPC tables in Section 3 (with the exception of Table 3-4, which was an oversight) and risk tables in Section 5 were revised as well, with the exception of the fish consumption risk tables per the prior agreement to not use RME/CT in reference to the fish consumption scenarios.	Tables should have been modified to identify RME and CT for EPCs and for fish consumption risks. Although EPA agreed that EPCs would not be discussed as RME or CT, EPA didn't understand that this agreement applied to the text as well as the tables.	Partially; however EPA's revisions do not define the EPCs used to evaluate the RME and CT.
3	Modify text to read: "Although fishers normally fish and/or collect those resources that are available in their area, it is not known to what extent fishers would substitute alternative local types of shellfish."	Directed change	"It is not known to what extent fishers substitute alternative local types of shellfish."	LWG did not include "although fishers normally fish and/or collect those resources that are available in their area," which EPA believes is a factual statement rather than a statement of opinion or judgment.	No. EPA retains LWG text exactly in §6.2.4.3.
4	Delete 2 sentences: "Uncertainty or variability factors, which typically range from two to three orders of magnitude (100 to 1000 times), are often used by EPA in deriving toxicity values for human health given the uncertainties in the toxicological data. As a result actual risks within the Study Area could be lower than the potential risk estimates calculated in the BHHRA."	Revise	"Modifying factors, which typically range from two to three orders of magnitude (100 to 1000 times), are often used by EPA in deriving toxicity values for human health given the level of confidence in the toxicological data, the intera-species differences (i.e. animal to human) and the inter-species differences to account for sensitive human subpopulations."	The revised text fails to clarify that modifying factors aren't used in the derivation of slope factors.	Yes (only because entire executive summary deleted)
5	The October 2009 BHHRA suggests that the report is different from other risk assessments because EPA directed the use of conservative assumptions. This is typical and consistent with guidance.	Revise	"Therefore, the results of the BHHRA have a margin of conservatism built into the risk conclusions consistent with EPA guidance (1989)"	EPA disagrees that the results of the BHHRA have a margin of conservatism built into the risk conclusions	Yes
6	Explain why only one of the surface water samples (W020) from Swan Island Lagoon was used for COPC screening for transients and recreational beach exposures and for the domestic water source.	Clarify	"For transients and beach users, COPCs were selected from surface water samples taken from areas where direct contact with transient or beach users could occur, including both single point sampling stations where vertically integrated samples were collected and transect samples. This included one sample from Swan Island Lagoon."	LWG did not explain, and EPA does not know, why samples W021 and W035 were not used.[22]	No. Discussion of surface water data set used for COPC screening deleted.
7	Change "suggest" to "show" in a sentence describing a fish consumption survey.	Revise	"The results of the survey show that tribal members surveyed generally have higher fish ingestion rates than the general public."	The LWG's language inappropriately qualifies the survey results inconsistent with EPA's provided language when used in conjunction with other language in the LWG's draft of Section 3.	No. EPA sentence in §3.2.1.7 reads, "The results of the survey show that tribal members surveyed generally consume more fish than the general public."
8	Text needs to identify that arsenic occurs naturally and describe the degree to which background arsenic concentrations contribute to risk.	Revise, clarify	Text revised to state that arsenic occurs naturally and to identify beaches at which arsenic concentrations are greater than background levels. These beaches are shown on Maps 5-2-1 and 5-2-2.	"We made a comment and their response went the wrong direction."	No. EPA deleted all discussion in §5 of potential risk related to background concentrations in arsenic in sediment and water.[23]

[22] Note that RI Map 5.3-1a clearly identifies locations of vertically integrated samples and identified W020 as the only such sample in Swan Island Lagoon. EPA and the LWG agreed to use integrated samples to identify COPCs for these exposure scenarios in the April 30, 2008 RI/RA issue resolution table, attached to this Reply at Tab 53.

[23] EPA's October 12, 2012 Response states that "EPA deleted all discussion of potential risk related to background concentrations of arsenic because it was inappropriately presented." Exhibit 6, p. 15. But it's clear from the June 22 EPA redline that EPA actually did intend to discuss risks from background arsenic: "Risks from background concentrations of arsenic in beach sediment and surface water are discussed in section 5 of the BHHRA." EPA June 22 directed redline, §6.4.3.

9	Provide supporting information for comparison of depurated and undepurated clam tissue, and state that undepurated clam data provides information only on 5 sampling locations, all of which were on the edges of the site rather than in areas with particularly high cPAH concentrations.	Issue	"Depurated clam tissue samples were collected from five locations at the northern and southern edges of the Study Area, while undepurated clam tissue samples were collected from 22 locations throughout the Study Area." Concentrations of COPCs in depurated and undepurated tissue samples were provided in a table in Attachment F6.	Depurated clam tissue concentrations should not have been compared with non-depurated clam tissue concentrations.	No. EPA deleted any reference to or discussion of depurated clams from §5.
10.	Delete sentence "In a deterministic risk assessment multiple conservative assumptions compound to result in an estimate of risk that can be many times (or orders of magnitude) greater than the likely actual risk posed by a particular site."	Revise	Text revised to state "In a deterministic risk assessment, conservative assumptions can compound to result in an estimate of risk that is at the upper end of the probable risk range."	LWG should have provided justification in support of "compounding" statement and did not and therefore the statement is a judgment or opinion.	Partially. EPA's text in Section 7.0 makes same point "The cumulative effect of these assumptions can result in an analysis having an overall conservativeness greater than the individual components."
11.	Withdrawn by EPA October 12 response				
12.	Database for COPCs in depurated clam tissue was limited to 5 of 22 samples, and the five samples are from the northern and southern stretches from the river and may not be representative of conditions from entire length of site and risk assessment should discuss uncertainty associated with same.	Issue	Text in uncertainty section revised to note that depurated samples were collected at only 5 stations at the edtes of the site and reference tables comparing depurated and undepurated tissue concentrations.	The LWG did not statistically prove that depurated clam tissue was representative of conditions throughout the study area.	No. EPA text in §6.1.4 is virtually identical.
13.	Present information related to the ratios between maximum and minimum concentration values in the main body of the risk characterization, as it shows that there are not major differences between risks calculated using the mean of the concentration data and those calculated using the maximum for individual exposure areas.	Clarify.	"Generally, the ratios between the maximum and minimum detected concentrations are less than 3. For in-water sediments, the ratios are less than 4. When comparisons are made within an exposure area for biota, the majority of the ratios of the 95% UCL/maximum EPCs to the mean are equal to or less than 2, and the remaining ratios are less than 4.	Other text not identified by the original comment contains judgment or opinions.	Partially. The language added by the LWG in §6.2.5.3 was retained. EPA deleted another sentence.
14.	Do not automatically disqualify N-qualified data.	Issue.	No data were eliminated from the identification of whether a chemical potentially poses unacceptable risk on the basis of N-qualified results.	The comment was directed towards the misquoting of EPA guidance, which was not fixed in the revised BHHRA, and asked for further analysis before eliminating the data, which doesn't seem to have been conducted in the revised BHHRA.	Partially. EPA slightly modified the LWG's discussion of guidance in §7.1.1, but the LWG never eliminated any data on this basis.
15.	Additional discussion and analysis needed for excluding PCB congener data from City of Portland outfall sediment investigation	Issue.	"This table shows 85 in-water samples for which Total PCB congeners were not calculated because of limited number of analytical results from the City of Portland outfall sediment investigation. These samples were analyzed for a limited number of congeners that did not meet the minimum number of PCB congeners required to compute a sum.	Draft BHHRA does not state the rule for excluding the data, nor does it discuss the overall effect of the exclusion.	No. EPA deleted all discussion about the City of Portland Investigation.
16.	Use of high risk and persistence value cancer slope factors	Issue	Comment requested modification of Section 2.9 of Attachment F6. LWG modified the section using the exact language EPA provided in the comment. The comment did not request or instruct deletion of any text.	Comment required modification of language, not insertion of EPA language.	No. (Although Exhibit 6 to EPA's October 12 response suggests that this will be a future EPA comment or revision to the BHHRA.)
17.	Fish ingestion rates (g/day) should not be characterized as "high," "higher" and "highest." Text should be clear that fish ingestion rates in the BHHRA appropriately address a range of exposures and protect high fish consuming populations.	Directed	Text of the draft final BHHRA was revised to describe ingestion rates numerically (g/day) rather than characterizing the rates as "high" or "low."	The LWG used opinionated language, such as "same rate every day of every year for 70 years" in five places in the BHHRA to describe the duration of exposure through fish consumption.	Yes.

EPA's October 12, 2012 response implies that its enforcement action against the LWG is, at least at this point, not significant, because "in the future ... agency discretion may be applied in determining whether to assess stipulated penalties."[24] However, the finding that the LWG violated the AOC carries with it a "black mark" that causes reputational harm and potential adverse effects in subsequent proceedings. (Straus Communications, Inc. v. FCC, 530 F2d 1001, 1006 (D.C. Cir 2006). As EPA well knows, the mere finding of noncompliance has the potential to create real problems for LWG members, including possibly increasing the difficulty and expense of recovering RI/FS costs from insurers or other PRPs and the potential trigger of regulatory or financial disclosure requirements. EPA's action has already resulted in highly negative media coverage for the LWG (including a story featuring an interview given by one of the EPA RPMs during the informal negotiation period).

On July 17, 2012, six days before the LWG initiated formal dispute resolution, one of EPA's RPMs contacted the LWG's project manager, Bob Wyatt, and offered to withdraw the notice of noncompliance if the LWG would agree not to dispute EPA's direction to accept all of its revisions to the May 2011 BHHRA. Although EPA insists that it is not "being coercive," just "using its enforcement authorities,"[25] it is very difficult to view EPA's relentless quest to find "even one" discrepancy between EPA's comments on the BHHRA and the May 2011 draft final BHHRA as anything but an attempt to leverage the LWG into quietly acquiescing in EPA's decision to set aside three years of work on the BHHRA and start over. Fortunately for all, the LWG and EPA worked together to improve upon the EPA's June 2012 directed redline, and, as a result of the very kind of collaborative process that EPA and the LWG have historically used, the September 2012 version is much more accurate than the June 2012 directed redline..[26]

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[24] EPA October 12, 2012 Response, p. 9.
[25] EPA October 12, 2012 Response, p. 6.
[26] EPA's June 2012 directed redline of the BHHRA was replete with errors and misstatements. Many of these errors and misstatements are identified in Tables 1 and 2 to the LWG's September 21 Opening Submission (noted as "1 – Technical Inaccuracy"). An egregious example is EPA definition of the Study Area in the June 2012 directed redline as RM 0.8 to RM 12.2. The EPA approved definition of the Study Area for the Remedial Investigation is RM 1.9 to RM 11.8. With no explanation, EPA added 1.5 miles to the Study Area. A second example is that sections 5 and 7 of EPA's June 2012 directed redline mischaracterized the risk posed by aldrin, arsenic, DDx, and dioxins/furans. A third example is that section 3 of the June 2012 directed redline incorrectly described how risks to children and infants were calculated. Other numerous examples are identified in Tables 1 and 2. EPA and the LWG worked together to resolve these errors during the informal negotiation period. Any minor errors in the LWG's May 2011 draft final BHHRA could have similarly been easily resolved through conversation, had EPA chosen to initiate it. The fact that the exemplary standard imposed on the LWG apparently does not apply to EPA's work product underscores the LWG's assertion that EPA's handling of this matter was arbitrary and capricious.

II. EPA should work with the LWG to finalize the BHHRA.

A. EPA's Reasonable Maximum Exposure is still unreasonable and inconsistent with guidance and merits 60 Days of further discussion.

EPA is asking you to adopt its Reasonable Maximum Exposure (RME) proposal without any further refinement or discussion. That would be a mistake. EPA's RME proposal was hastily developed, it still has significant flaws, and EPA has not allowed sufficient time to discuss it with the LWG. EPA made a decision in 2004 not to include an RME for fish consumption, and then in June 2012 decided a "course correction" was needed and designated over 108 RMEs without any discussion with the LWG.[27] The LWG is simply asking the you to allow 60 days to refine the RME approach to ensure that the BHHRA, and ultimately the cleanup plan, is technically and legally sound based on the information and data collected about the Site over the past eight years.

After reviewing LWG's objections to the June "course correction," EPA revised its RMEs. Specifically, EPA has acknowledged that the recreational fisher RME should use fillet with skin, not whole body, and that both the recreational and subsistence fisher RMEs should be based on a multi-species diet of resident fish, rather than one single species. While EPA's adjustments are a step in the right direction, significant issues still must be addressed to produce a technically defensible BHHRA.

There are two fundamental problems that remain in EPA's newest RME proposal, which is contained in EPA's October 12 response. First, EPA evaluates each exposure factor in isolation in direct contradiction of the guidance. Risk Assessment Guidance for Superfund (RAGS) provides that the RME scenario for each pathway is developed by combining a mix of upper bound and mid-range exposure factors.[28] For example, one cannot select the exposure area without considering the consumption rate, type of species consumed, and time period of exposure. However, for the RME here, EPA has selected each exposure factor without evaluating its relationship to other exposure factors, thereby creating RMEs that are unlikely to occur. The second problem is that while EPA admits there are concerns over the validity of certain assumptions it makes, it summarily dismisses those concerns because it believes a change to address them would have minimal impact on the baseline risks. To the contrary, EPA's decision to use what it considers a "close enough" measure could have a significant impact on EPA's cleanup decision, because the risk described by EPA's RME is greater than the risk that needs to be remediated. For these reasons, accepting the new RME approach represented by EPA in the October 12 response would be inconsistent with the National Contingency Plan and EPA guidance, and is therefore arbitrary and capricious.

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[27] EPA October 12, 2012 Response at 22.

[28] RAGS, Vol. 1, Supplemental Guidance, Sec. 1.0, (Tab 29); see also 55 Fed. Reg. 8666, at 8710, (Tab 30) ("The reasonable maximum exposure scenario is 'reasonable' because it is a product of factors, such as concentration and exposure frequency and duration, that are an appropriate mix of values that reflect averages and 95th percentile distributions.")

These two fundamental problems manifest themselves in: (1) how to apply the exposure area; (2) the fish consumption rate for both recreational and subsistence fishers; and (3) whether to use whole body tissue in an RME scenario for the subsistence fisher pathway. Given the importance of this issue, the LWG disagrees with EPA that spending an additional 60 days to work out this "course correction" on RME is not warranted.

1. EPA's exposure area analysis is not reasonable because it does not appropriately consider the home ranges of all resident fish, does not evaluate the popularity of fishing locations, and does not relate consumption rates to the scale used.

EPA's October 12 response indicates it has misunderstood the LWG's position on the exposure area. The LWG did not state that fish consumption exposure should never be evaluated on spatial scales smaller than the defined site boundaries. In fact, the LWG has repeatedly indicated it is open to presenting evaluations of risk on smaller spatial scales (i.e., one river mile).[29] Rather, the LWG disagrees that an exposure area of one river mile should be used for the RME when combined with EPA's other exposure assumptions, such as the population exposed and the fish species consumed. As the LWG stated in its September 21 opening submission, even if a site-wide exposure is used for the RME, the BHHRA can still present smaller exposure areas to assess uncertainties.

As stated by EPA in the October 12 response, "exposures should be evaluated based both on the chemical distribution at the site, and the location and activity patterns of the potentially exposed populations." The first problem here is that using one-river mile is not relevant to the population exposed, nor is it directly tied to the chemical exposure of the fish consumed. The one river mile exposure area was established based entirely on the potential home range of smallmouth bass, not on the fishing patterns of the recreational or subsistence fishers. It is reasonable to assume that fishers would likely collect fish from locations throughout the site over the course of the assumed exposure duration of 30 years. But it is not reasonable to assume that individual fishers obtain all of the fish they ingest over 30 years from a single river mile. While there may be more popular fishing areas, there is no site-specific study or information available to identify them; selecting one-river mile as the exposure scale for the population would be completely arbitrary. In addition, given that EPA has changed course and assumes a multi-species diet, the one-river mile exposure scale has even less relevance, given that the other resident species contemplated for this scenario, which will be three-quarters of a person's multi-species diet, have home ranges larger than one-river mile.[30]

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[29] First, as stated in LWG's proposal submitted during informal negotiations, the RME could be designated based on smaller exposure scales if combined with a less conservative, mid-range fish consumption rate. EPA October 12, 2012 Response, Exhibit 16. Second, if the RME is based on a site-wide exposure using a higher end fish consumption rate, the BHHRA could present smaller scale evaluations (i.e. one river mile) for the recreational fisher to assess uncertainties. LWG September 21, 2012 Opening Submission, p. 21.

[30] The BHHRA presents carp, brown bullhead, and black crappie using fishing zones of three to four-mile segments based on the larger home ranges of these species. If a smaller scale is designated, an exposure area of at least three miles would be more appropriate given these species make up three-quarters of the multi-species resident diet.

These facts lead to the second problem: EPA is combining a very conservative assumption on exposure area with a higher-end consumption rate. Per RAGS A, the RME for a pathway is defined based on the combination of intake parameters.[31] It is not reasonable to combine a high-end fish consumption rate with an exposure point concentration representing a single river mile, especially when the fish consumption rate was intended to be applied to an entire water body. If the smaller exposure area is used for the RME, the fish consumption rate should be lowered to reflect the fraction of total fish intake that would be collected from the smaller fishing area.

2. EPA's failure to use the fish consumption rates that it acknowledges are correct is arbitrary and capricious, and EPA's reference to 200g per day consumption rates is inapplicable.

EPA relies on the Columbia Slough Study to support the application of 73 grams per day (g/day) as the consumption rate for the recreational fisher who eats fillet with skin. EPA makes this assumption despite the fact that EPA acknowledges that the appropriate fish consumption rate for fillet consumption based on the Columbia Slough study would be 29 g/day, not 73 g/day: *"Assuming fillet-only consumption and that 30 percent of the total weight of the fish is consumed, the corresponding rate is 29 g/day."* EPA dismisses the 29 g/day rate because the value is "...approximately within a factor of 2 of the 73 g/day value proposed by EPA. Thus, any revisions using a lower consumption rate than the 73 g/day as proposed would have minimal effect on the corresponding risk estimates for recreational fishers."[32] EPA provides no other justification for dismissing the consumption rate of 29 g/day, which by EPA's own admission more accurately reflects the data from the Columbia Slough study. EPA's declaration that "it's close enough" would create a risk assessment that is arbitrary and capricious and inconsistent with the NCP.

In addition, as noted in RAGS, the RME typically guides the evaluation of the protectiveness of remedial alternatives and the establishment of cleanup goals.[33] A factor of two does have a significant effect in calculating preliminary remedial goals for the site, and would become a significant consideration in the selection of final cleanup goals. By agreeing that 29

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[31] RAGS A, Section 6.4.1, p. 6-19 (Tab 29): "For Superfund exposure assessments, intake variable values for a given pathway should be selected so that the combination of all intake variables results in an estimate of the reasonable maximum exposure for that pathway."
[32] EPA October 12, 2012 Response, p. 14.
[33] RAGS A, Section 6.4.1, p. 6-5 (Tab 29) ("Actions at Superfund sites should be based on an estimate of the reasonable maximum exposure (RME) expected to occur under both current and future land-use conditions." (emphasis omitted)). *See also* Preamble to the NCP, 55 FR 8710 ("EPA is clarifying its policy of making exposure assumptions that result in an overall exposure estimate that is conservative but within a realistic range of exposure. Under this policy, EPA defines 'reasonable maximum' such that only potential exposures that are likely to occur will be included in the assessment of exposures. The Superfund program has always designed its remedies to be protective of all individuals and environmental receptors that may be exposed at a site; consequently, EPA believes that it is important to include all reasonably expected exposures in its risk assessments."); An Examination of EPA Risk Assessment Principles and Practices, Section 5.1.2, p. 102 ("Pursuant to the NCP, decisions at Superfund sites are based on cancer risks and non-cancer health hazards associated with RME estimates under both current and future land use conditions."); *id.* at Section 5.6, p. 119 ("For the Superfund program, EPA bases decisions on current and future risks associated with reasonable high-end exposures or RME, not only the average exposures.").

g/day is in fact the correct rate to use from the Columbia Slough study, but then refusing to use it in the risk assessment, EPA is establishing a basis for potentially responsible parties to challenge EPA's cleanup plan. This is not good for the LWG, EPA, or the community.

EPA's reference to the consumption rate of 200 g/day is not relevant for the discussion of recreational fish consumption rates.[34] First, 17.5 g/day is the 90th percentile for consumers and non-consumers and the 200 g/day rate is the 90th percentile for consumers only. These percentiles are from a national dietary study on fish-containing foods in general for the entire U.S. population and do not correlate to fish consumption by recreational fishers. Furthermore, the national dietary study is a two-day dietary recall study where the consumer versus non-consumer designation is determined based entirely on whether fish-containing food was consumed during that two-day period.

The reason EPA and LWG agreed to use the 17.5 g/day in the BHHRA and the reason the LWG recommended using it for Portland Harbor to represent the recreational fisher is because EPA's Ambient Water Quality Guidelines recommend the use of 17.5 g/day as the default fish consumption rate for recreational fishers in the absence of site-specific studies.[35] Per EPA's Ambient Water Quality Guidelines, EPA believes that 17.5 g/day is representative of fish intake for sports fishers and should be used in the absence of applicable consumption rates from local, State, or regional studies. According to the standards that EPA established for conducting and using fish consumption surveys at the site,[36] there are no consumption rates available from local, State, or regional studies that are appropriate for use in the risk assessment. Given that 17.5 g/day is the value recommended by EPA for recreational fishers in the Ambient Water Quality Guidelines, there is no basis for using a different data set from the national dietary study to argue for an alternative value for recreational fish consumption.

Finally, EPA misrepresents the issue associated with migratory fish consumption, which has an impact on the fish consumption rate selected for the RME. It is true that an evaluation of risks associated with consumption of migratory fish is not informative about risks from contamination in Portland Harbor. That is why the Portland Harbor risk analysis uses resident fish tissue data. However, recreational fishers are likely to consume both resident and migratory fish species.[37] Therefore, evaluating risk from only resident fish justifies the use of a lower fish consumption rate because it represents only part of the total fish consumption, as the overall fish

[34] Table 6 provides the LWG's response to several other fish consumption studies cited in EPA's October 12, 2012 Response, p. 15, that are not further discussed in this reply.
[35] EPA Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000), Section 4.3.3.1, p. 4-24 (Tab 42): "EPA recommends default fish intake rates for recreational and subsistence fishers of 17.5 grams/day and 142.4 grams/day, respectively."
[36] EPA comments on the Programmatic Work Plan (July 25, 2003), p. 53 (Tab 35): "a well done fish consumption study that provides usable quantitative data, whether for the risk characterization or for comparison with existing studies, would require at least two to three years to complete and cost several hundred thousand dollars"
[37] DEQ Portland Harbor RI/FS Work Plan (draft, March 31, 2000), Section 9.2.4, p. 200 (Tab 49): "In contrast, recreational fishing is extremely popular throughout the lower Willamette basin. Resident species such as largemouth bass, black crappie, white crappie, and walleye support a significant year-round recreational fishery. Species most desired by most recreational sport anglers are spring chinook, steelhead, coho, shad, and white sturgeon."

consumption would include both resident and migratory fish. Instead, it appears that EPA wants to take fish consumption rates that are based on all fish—migratory and resident species—and apply it only to resident fish consumed from Portland Harbor without any adjustment factor. This is particularly troubling with respect to the 142 g/day subsistence fisher given the use of the high consumption rate. When EPA combines a high rate – 73 g/day recreational or 142 g/day subsistence – with the other conservative assumptions (e.g. one-river mile exposure area or whole fish) it creates an RME scenario that is highly unlikely to occur.

3. Whole body consumption is not a likely scenario and should only be part of an uncertainty analysis, not an RME.

The LWG disagrees with EPA's use of whole body consumption for the subsistence fisher RME. As EPA acknowledges, consumption of the entire fish may not represent a common practice.[38] Therefore, whole body fish consumption is not a reasonable assumption for use in the RME (again, according to guidance an RME scenario is not to represent the worst-case, but the upper bound of a likely and recurring exposure). Subsistence fishers may consume portions of the fish other than the fillet tissue, but the consumption of other portions of the fish would be at lower rates than that assumed for fillet tissue. Therefore, it is not appropriate to combine an upper percentile consumption rate with whole body tissue for the RME scenario. In addition, the RME includes other assumptions that offset not considering the potential consumption of other portions of the fish, such as the assumption of no reductions from preparation or cooking methods.

4. The RMEs have evolved through the dispute process and a short additional time period to finalize the RME scenarios is appropriate.

Although the inclusion of RMEs is contrary to is prior agreements with EPA, the LWG does not dispute EPA's determination to include RMEs for a recreational fisher and a high consumption (subsistence) fisher. However, EPA and LWG should take the time to get the RME scenario right. The RME guides selection of cleanup goals and could have significant impacts to EPA's cleanup decision, in terms of protectiveness and costs. Given that the range of cleanup costs estimated in the draft feasibility study is between $200 million and $1.8 billion, it is prudent to consider the issue carefully.

EPA claims that the fish ingestion rates have been a subject of deliberation with LWG for the past 10 years. That simply is not true. While there was significant debate on those issues during the two years prior to the approval of the Programmatic Work Plan in 2004, there has been no significant discussion of the fish consumption approach since. The prior agreements on the scenarios and the context of their use have informed decisions and activities at the site until now. EPA's change in approach at this late stage in the process (i.e., the second draft of the BHHRA) should be carefully deliberated to ensure that the RME is based on an appropriate mix

[38] EPA October 12, 2012 Response, p.13 ("EPA acknowledges that consumption of the entire fish may not represent a common practice, but that the degree to which whole body data may overestimate intake should be assessed as an uncertainty.").

of mid- to high-end range exposure factors and includes consideration of how the available data will be used.[39]

The LWG requested the 60 day period to finalize the RMEs because EPA verbally presented the concept of its new proposal on RME only in the last 15 minutes of the last informal dispute meeting on September 10, 2012. At that meeting, EPA stated that the staff had not discussed the proposal even amongst themselves yet and it was still being developed. EPA then followed up with the complete proposal in the email dated September 11, 2012. The LWG responded by asking for time to discuss the details because the LWG believed a reasonable resolution could be reached that is technically and legally sound. EPA denied this request. While delay is certainly a concern of the LWG, we do not believe that two months of discussion will delay the overall RI/FS schedule given that LWG is still waiting for EPA's comments on the second draft Remedial Investigation report, which EPA has had for 14 months, and waiting for EPA's feedback on the draft Feasibility Study, which EPA has had for 7 months.

B. The addition of explanatory language to the BHHRA is necessary to provide an adequate description of the actual risks relating to exposure though domestic drinking water use and clam consumption.

Table 5 to the LWG September 21opening submission shows exactly what is at issue here. The LWG is asking EPA *to add just 36 words* to its explanation of the domestic drinking water supply and clam consumption scenarios that are evaluated in the risk assessment – 16 words with respect to drinking water and 20 with respect to clam consumption. EPA is correct that it has now agreed to include all these words in the "Uncertainty Analysis" section, which currently begins at page 100 of the BHHRA.[40] The LWG believes that the explanation these words provide needs to be included in the Exposure Assessment section as well. You should require this change because it is consistent with EPA guidance as explained in the LWG's September 21 opening submission, because it is consistent with the practice of other EPA regions, and because it is the most forthright way to explain this part of the risk assessment to the public.

[39] For example, the focus is moving from single species to multi-species consumption. EPA wants to use a one river mile exposure scenario, but only bass data are available for one river mile segments because these are the only species where the one-river mile scenario is relevant. EPA and LWG should carefully determine how concerns about smaller exposure scales can be evaluated given the data set available and the home ranges of all four species. EPA suggests substituting bass data for the three other species; that approach does not allow evaluation of a multi-species diet as it would result in an RME that is based on one river mile using a single species diet of bass. The other three fish species (carp, brown bullhead, black crappie) were collected over fishing zones representative of those species' home ranges (three to four miles), and those data could be used to evaluate multi-species diets on a smaller exposure scale, if needed.

[40] EPA states in its October 12 response at page 16 that its June 2012 directed redline of the risk assessment did not delete this language but retained it in the uncertainty section. This is incorrect. EPA originally deleted this information entirely. Over the course of negotiations since June 2012, it has agreed to add it back, but only to the Uncertainty Analysis section. *See* Exhibit 1 to LWG Opening Submission at pages 108 and 109.

1. Domestic drinking water supply

To understand why this is important in the context of drinking water, it helps to start at the end. The risk assessment reaches two conclusions with respect to drinking water. First, if someone is a transient who drinks surface water directly from the river and uses it for bathing, assuming up to two years of continuous exposure, he or she faces no unacceptable risk.[41] However, *if* someone *were to use untreated* surface water as a *permanent domestic water source in his or her house 365 days a year for up to 30 years*, then that person faces unacceptable risk from PAHs (and from MCPP if the water is drawn solely from two specific areas of the river). EPA and the LWG agree that there is no current domestic water supply use and that the City of Portland does not anticipate any such future use. The LWG and EPA's professional risk assessors are also clear in their understanding of the assumptions that are used in the domestic drinking water scenario that is nonetheless evaluated in the BHHRA—this scenario assumes that someone installs a pipe and pump system to deliver untreated surface water from the Willamette River in the Portland Harbor directly into his or her house without any conventional water treatment and then uses it for 100 percent of his or her drinking, cooking and bathing needs for a period of up to 30 years.[42]

You need to answer two questions. Given how EPA proposes describing this scenario, primarily in the Uncertainty Analysis section, will the assumptions that have been used be clear to the public? And, more importantly, does the public deserve to have the important contextual information from which to understand the likelihood of that scenario occurring, and therefore the relative weight that should be applied to it in risk management decisions, up front in the document, rather than be required to dig into the Uncertainty Analysis to discover it? The LWG believes the answer to the first question is "no," and the answer to the second question is "yes," and that both concerns can be addressed with the addition of a few words.

Making this change will be consistent with the approach to providing context information relied upon by EPA in the risk assessment prepared by the Wisconsin Department of Natural Resources (WDNR) for the Lower Fox River. Within the first seven pages of the BHHRA section of that document, WDNR explained fully the drinking water uses of the different segments of the Lower Fox River. For example:

> "From Lake Winnebago to the dam at Appleton, the Lower Fox River serves as a secondary source of drinking water for the communities of Neenah, Menasha, and Appleton. *All river water is treated prior to joining the water-distribution systems in these communities.*"[43]

In the Lower Fox, there was even more reason to evaluate the domestic water supply scenario in the first place. Although the Lower Fox River is not used as a primary drinking

[41] *See* Section 5.2.3 of the September 17, 2012 EPA/LWG redline of the BHHRA.
[42] *See* May 2011 Draft Final BHHRA, Table 3-30 (Tab 15).
[43] Wisconsin Department of Natural Resources, Final BHHRA and Ecological Risk Assessment for Lower Fox River and Green Bay, Wisconsin at Tab 44 of LWG Opening Submission, p. 5-7 (2002).

water source, it is used as a secondary source by some communities. [44] In Portland Harbor, the Willamette River is not used currently by anyone as a primary or secondary drinking water source, and there is no currently anticipated future use. The only reason the domestic water supply scenario is being evaluated is because Oregon's designated beneficial use of the Main Stem Willamette River includes designations for Public Domestic Water Supply and Private Domestic Water Supply. However, both of those designations are clearly described as being "with adequate pretreatment and natural quality that meets drinking water standards." All that the LWG is asking is that, parallel to the explanation provided in the quote above from the risk assessment for the Lower Fox, the explanation of the scenario in Portland Harbor explain that the designated beneficial use assumes conventional pretreatment.[45]

2. Clam Consumption

At issue here is whether the BHHRA should explain up front in the risk assessment two undisputed facts: (1) that the only clams that have been found in the Portland Harbor are an invasive, non-native species, and (2) that Oregon law prohibits harvesting them.

EPA does not address at all in its October 12 response why, while it states in section 3.3.6 of the risk assessment that the only clams found in the Study Area were Asian clams (*Corbicula* sp.), it is not willing to add the explanation "which are an invasive, non-native species." This is undisputed factual information that should be included for the public's benefit, and it will be confusing to the public without it (i.e. otherwise what is the public to infer from the information that they are Asian clams?). You should decide that this language be included.

On the second point, EPA argues that the fact that Oregon law prohibits harvesting this invasive, non-native species should be not included because that is an "institutional control," and baseline risk assessments should not assume application of any institutional controls. EPA argues that there is no relevant definition of "institutional control" to guide this determination.

You don't need a formal definition of "institutional controls" to resolve this. You need only look at what the baseline risk assessment is supposed to do:

> "The role of the baseline risk assessment is to address the risk associated with a site in the absence of any remedial action or control, including institutional

[44] As EPA notes in its October 12 response, LWG's Opening Submission incorrectly states that the Lower Fox River excludes the drinking water scenario entirely. However, the LWG is not requesting that you go so far as to exclude the drinking water scenario from the BHHRA. It is only asking that the Portland Harbor BHHRA follow the precedent of the Lower Fox BHHRA by including the information that Oregon's designation of the Willamette River for public or private drinking water supplies includes an assumption of conventional pretreatment.

[45] Contrary to footnote 17 of EPA's October 12 response, the LWG is not suggesting it should be assumed that there will be any special treatment for hazardous substances. However, pretreatment for just conventional parameters (like removal of solids) impacts water quality substantially. ODEQ has interpreted the drinking water beneficial use designation to require surface waters to "be of sufficiently quality that it is possible for them to meet drinking water standards with conventional treatment measures." IDEQ/ODEQ, Snake River – Hells Canyon TMDL, p. 71 (rev. June 2004) (Tab 39).

> controls. The baseline assessment is essentially an evaluation of the no-action alternative."[46]

Therefore, in order to decide what information is important to include in the baseline risk assessment, you should ask whether the BHHRA is adequately describing what the baseline, no-action conditions are in Portland Harbor. Part of that no-action baseline condition is the fact that Oregon has a law that has nothing to do with Portland Harbor or even with contamination, which prohibits the harvesting of non-native wildlife, including these Asian clams. That law is in place now, and it will remain in place whether or not there is any action in Portland Harbor. It is therefore part of the baseline, no action, condition, which the preamble to the NCP says should be described in the risk assessment.[47]

This law is not a "remedial action or control including institutional controls." However, even if EPA thinks otherwise, the LWG does not understand EPA's objection to including this information in the exposure assessment section given that EPA has agreed to include it in the uncertainty analysis section of the BHHRA. EPA's argument that relevant Oregon laws are institutional controls that should not be included in a baseline risk assessment does not justify excluding them from the exposure assessment section while including them in another section of the BHHRA.

Accordingly, the 20 word explanation that the LWG has proposed should be included in section 3.3.6. As described in the LWG's Opening Submission, this is consistent with the treatment of a very similar issue by EPA Region 1 for the Housatonic.[48]

C. The LWG believes the BHHRA should include a concise statement of the major conclusions of risk assessment.

We are pleased that EPA agrees that the BHHRA should include an executive summary and a table of contents. We continue to believe that a concise statement of the major conclusions of the risk assessment would be helpful to non-technical readers of the document. The Baseline Human Health Risk Assessment for the Lower Duwamish Waterway, for example, includes a brief, plain-English identification of the contaminants that present the majority of the risk at the

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[46] 55 Fed. Reg. 8,665, 8,710-11 (1990) (Tab 30).

[47] "EPA agrees that risk assessments conducted for the Superfund should take into consideration background concentrations and *conditions and should identify these critical assumptions and uncertainties in its risk assessment.*" 55 Fed. Reg. 8,665, 8,710 (1990) (Tab 30).

[48] "A construction worker scenario was not considered a complete exposure pathway because flooding and wetland protection regulations preclude major construction in the floodplain. Therefore, the construction worker scenario was not evaluated further in the risk assessment." ACOE/EPA, HHRA, GE/Housatonic River Site, Rest of River, Vol. I, p. 7-8 (Feb. 2005) (Tab 46).

site, and where those chemicals occur. We agree with EPA's view that "it is imperative that the document be clear as possible regarding the major assumptions and conclusions." [49]

D. EPA should adopt the September 17, 2012 version of the BHHRA and Tables 1 and 2.

The LWG has disputed EPA's June 2012 directed redline of the BHHRA. We believe it is critical that all matters necessary to finalize the BHHRA be resolved by this dispute. EPA concedes that Tables 1 and 2 to the LWG's September 21 opening submission "generally reflect" the agreed resolution of issued raised by the LWG concerning the June 2012 directed redline. We request that you adopt these Tables as revisions and corrections that will be made in the final BHHRA.

III. The LWG is asking for meaningful coordination, not an amendment to the Consent Order.

We want to be clear: The LWG is not seeking to amend the Consent Order through dispute resolution or to dilute EPA's enforcement authority. We have simply requested a meeting between the ECL Director and LWG senior management to establish agreed upon protocols consistent with the Consent Order to guide a better working relationship between EPA and the LWG. We think that the Consent Order already provides all of the necessary tools to support the open communication, trust, and flexibility that are essential to effective collaboration.

First, the Consent Order requires EPA to meet with the LWG in an effort to avoid disputes.[50] This requirement was added to EPA's first draft of the Consent Order at the LWG's request,[51] because EPA and the LWG agreed that open communication was critical to the success of the Portland Harbor RI/FS. EPA's concern that a commitment to better communication might deviate from the model consent order should not be an issue.

Second, the Consent Order identified a Project Coordinator with "the authority lawfully vested in a Remedial Project Manager (RPM) and On-Scene Coordinator (OSC) by the NCP."[52] The National Contingency Plan provides the RPM with authority to "coordinate, direct and review the work of ... responsible parties to assure compliance with the ... consent order."[53] The Portland Harbor RI/FS has been a complicated, iterative investigation; as of September 2012, the LWG was still awaiting EPA approval of nearly 70 deliverables going back to 2004. The LWG has been willing to press on, because we have trusted in the RPMs' authority to make day-to-day decisions about each next step of the investigation. Only after we received EPA's June 22, 2012 directed redline were we advised of Region 10's opinion that only the ECL Director can make such decisions. We learned only in the October 12 response that it is "wholly unreasonable" for us to understand the term "comprehensive set of comments" to mean all of

[49] EPA October 12, 2012 Response, p. 3.
[50] Consent Order, §IX.1.
[51] Dost email to E McKenna, February 28, 2001 (Tab 51).
[52] Consent Order, §XV.4.
[53] 40 C.F.R. §300.120(f)(2)

EPA's comments that must be resolved to finalize a document.[54] We also learned that although EPA had gone to considerable lengths in the past to distinguish directive comments from non-directive ones, those were meaningless distinctions without a difference, because EPA intended to enforce all equally. As we have said repeatedly, we understand that EPA needs flexibility to respond to changed circumstances, and that a decision that makes sense the day that it is made can result in unintended consequences that may require revisiting. But we think the RPMs are already authorized by the Consent Order and the NCP to make reliable decisions about the Portland Harbor and to communicate with the LWG when an adjustment appears necessary.

Finally, the Consent Order includes a dispute resolution provision that was expressly modified from the model order ("any disputes may be resolved"[55]) to allow the parties broad flexibility to solve problems as they arise. As Charlie Ordine put it during our negotiation of the Consent Order, the dispute resolution provision was hardly worth discussing, "since your clients will undoubtedly be able to elevate any dispute to our regional administrator & politicians beyond whenever they see fit."[56] Therefore, in the same way the Consent Order by its terms allows us to use the dispute resolution provision as a means to address EPA's failure to honor its agreements with the LWG without notice or explanation (a "dispute[] concerning activities ... under this Order"), the Consent Order does not limit our options for solving problems that arise during the RI/FS.

This approach is entirely consistent with EPA guidance, which encourages EPA to "engage in open dialogues" with parties performing under EPA settlement agreements:

> "Successful working relationships depend on regular, clear and open communications between parties, shared commitment to reaching common goals, mutual understanding of expectations, flexibility to changing conditions, and a willingness to listen."[57]

A commitment to communication and shared expectations between EPA and PRPs is not "problematic under the CERCLA statutory scheme"[58] as EPA's October 12 response suggests; it is EPA's express policy.

We disagree with EPA's view that it was "under no requirement to notify the Respondents prior to modifying the BHHRA, nor was EPA required to discuss the basis for our modifications prior to providing them the modified BHHRA."[59] But our real question is, obligated or not, why didn't EPA talk to us about the BHHRA when it decided that a "correction in course" was necessary? Whether EPA has the legal authority to unilaterally walk away from years of detailed, negotiated agreements without

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[54] EPA October 12, 2012 Response, fn. 4.
[55] Consent Order, §XVIII.1 (emphasis added).
[56] Ordine email to Newlands, July 27, 2001, attached at Tab 54.
[57] Interim Guidance on Implementing the Superfund Administrative Reform on PRP Oversight (EPA, May 17, 2000), p. 3.
[58] EPA October 12, 2012 Response, p. 23.
[59] EPA October 12, 2012 Response, p. 22.

a word of explanation is an entirely different question than whether EPA ought to interact with cooperative, competent settling parties in this manner.

The Portland Harbor Superfund Site has a long way to go. EPA and the LWG still have to finalize the ecological risk assessment, the remedial investigation, and the feasibility study. Once EPA makes decisions about the remedy, EPA will expect someone to do the remedial design and conduct the remedial action. The success of all of this depends on cooperation between EPA and responsible parties. We are extremely concerned that the collapse of the working relationship between EPA and the LWG brought on by EPA's directed revisions to the agreed content of the draft final BHHRA along with enforcement action will not only impair the timely finalizing of the RI/FS documents but also EPA's ability to build a much larger coalition of performing and funding parties that will be necessary to implement the Portland Harbor remedy. EPA staff's view that the process is not "broken" but "actually worked as the AOC was designed" is simply wrong. If they truly believe that, then a "correction in the course" in the parties' working relationship – not just in the BHHRA – is essential.

For these reasons, we respectfully request that you agree to schedule a meeting between the ECL Director and LWG senior management to develop a process, within the framework of the existing Consent Order and current EPA policy and guidance that not only restores trust and confidence between EPA and the LWG, but inspires trust and confidence in the other responsible parties who will ultimately be asked to participate in the Portland Harbor cleanup.

Conclusion

For all of the reasons stated above, we ask you to:

1. Withdraw the June 22, 2012 notice of noncompliance with the Consent Order and the June 29, 2012 threat to issue stipulated penalties;

2. Retract EPA's June 2012 directions on the RME case for fish consumption, do not adopt EPA's October proposal, and direct staff to work with the LWG for a 60-day period on development of an RME case that is consistent with guidance, as outlined above;

3. Direct EPA staff to insert relevant factual information into the exposure assessment and risk characterization sections of the BHHRA regarding the drinking water scenario and clam consumption scenario;

4. Direct EPA to include a conclusion section to the BHHRA in addition to the table of contents and executive summary;

5. Approve the agreed revisions reflected in Exhibit 1 and Tables 1 and 2 to be incorporated into the BHHRA; and

6. Commit to meet with the LWG Senior Management and to establish a mutually-agreed upon set of documented protocols to guide a better working relationship between the

LWG and EPA such that EPA can successfully manage the RI/FS through to completion and facilitate a solid partnership with the responsible parties to clean up Portland Harbor.

The LWG looks forward to moving beyond this dispute toward finalization of the RI/FS and the identification of protective remedies that can be implemented at Portland Harbor.

Sincerely,

The Lower Willamette Group

cc: Lori Cora
Kristine Koch
Chip Humphrey
Elizabeth Allen

Enclosures:
Table 5: LWG Proposed BHHRA Revisions re: Exposure Scenario Context Information
Table 6: LWG Response to Fish Consumption Studies Cited by EPA
Additional reference material on CD, Tabs 50-54

Table 5

TABLE 5: LWG PROPOSED REVISIONS RE EXPOSURE SCENARIO CONTEXT INFORMATION

Section in 9/17/12 EPA Draft	Language in 9/17/12 EPA Draft	Reason for Objection	LWG-Proposed Revision
3.2.1.8	According to the City of Portland, the primary domestic water source for the city is the Bull Run watershed, which is supplemented by a groundwater supply from the Columbia South Shore Well Field (City of Portland 2008). In addition, the Willamette River was determined not to be a viable water source for future water demands through 2030 (City of Portland 2008). Although there are currently no known uses of the Lower Willamette River as a source of drinking water, public and private use of the Willamette River as a domestic water source is a designated beneficial use by the State of Oregon. Hence, use of surface water as a source of household water was assessed as a potentially complete pathway. Exposure to surface water could occur via ingestion and dermal contact, as well as volatilization of chemicals to indoor air through household use.	• Does not include all context information relating to the likelihood of exposure actually occurring under the scenario evaluated: "EPA conducts an exposure assessment to identify the magnitude of actual or potential human or environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. This exposure assessment includes an evaluation of the likelihood of such exposures occurring and provides the basis for the development of acceptable exposure levels." 55 Fed. Reg. 8,665, 8,710 (1990). • The information is relevant context information that should be addressed the Exposure Assessment section and not just the Uncertainty Analysis section. • The full description of the beneficial use designation is not an "institutional control" but rather a part of the "no action" baseline condition.	According to the City of Portland, the primary domestic water source for the city is the Bull Run watershed, which is supplemented by a groundwater supply from the Columbia South Shore Well Field (City of Portland 2008). In addition, the Willamette River was determined not to be a viable water source for future water demands through 2030 (City of Portland 2008). Although there are currently no known uses of the Lower Willamette River as a source of drinking water, public and private use of the Willamette River as a domestic water source is a designated beneficial use by the State of Oregon with adequate pretreatment and natural quality that meets drinking water standards. ~~Hence,~~ ~~u~~However, use of untreated surface water as a source of household water was assessed as a potentially complete pathway.

Section in 9/17/12 EPA Draft	Language in 9/17/12 EPA Draft	Reason for Objection	LWG-Proposed Revision
3.3.6	The actual extent shellfish harvesting and consumption is presently occurring is not known. The Linnton Community Center project (Wagner 2004) reported that some transients reported eating clams and crayfish, although many of the individuals indicated that they were in the area temporarily, move from location to location frequently, or have variable diets based on what is easily available. While the degree to which consumption of clams currently occurs in Portland Harbor is unknown, the Linnton Community Center project suggests that it does not occur on an ongoing basis within the Study Area. The only clam species found in the Study Area during sampling events were Asian clams (*Corbicula* sp.).	• Does not include all context information relating to the likelihood of exposure actually occurring under the scenario evaluated: "EPA conducts an exposure assessment to identify the magnitude of actual or potential human or environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. This exposure assessment includes an evaluation of the likelihood of such exposures occurring and provides the basis for the development of acceptable exposure levels." 55 Fed. Reg. 8,665, 8,710 (1990). • The information is relevant context information that should be addressed the Exposure Assessment section and not just the Uncertainty Analysis section. • The description of the legal prohibition on harvesting is not an "institutional control" but rather a part of the "no action" baseline condition.	The actual extent shellfish harvesting and consumption is presently occurring is not known. The Linnton Community Center project (Wagner 2004) reported that some transients reported eating clams and crayfish, although many of the individuals indicated that they were in the area temporarily, move from location to location frequently, or have variable diets based on what is easily available. While the degree to which consumption of clams currently occurs in Portland Harbor is unknown, the Linnton Community Center project suggests that it does not occur on an ongoing basis within the Study Area. The only clam species found in the Study Area during sampling events were Asian clams (*Corbicula* sp.)~~.~~, which are an invasive, non-native species, and Oregon law (OAR 635–056–0050) prohibits the possession, transportation, and sale of non-native wildlife.

Section in 9/17/12 EPA Draft	Language in 9/17/12 EPA Draft	Reason for Objection	LWG-Proposed Revision
3.5.10.8	Use of surface water as a household water source was evaluated assuming exposure occurs in a residential setting.	• Does not include a key assumption: "An exposure scenario generally includes facts, data, assumptions, inferences, and sometimes professional judgment about the following: …The physical setting where exposure takes place (exposure setting)[;] The exposure pathway(s) from source(s) to exposed individual(s) (exposure pathways)[;] Identification of the individual(s) or population(s) exposed, and the profile of contact with the chemical based on behavior, location as a function of time, characteristics of the individuals, etc. (characterization of the exposed population)[.]" EPA, Guidelines for Exposure Assessment, pp. 72-73 (1992).	Use of untreated surface water as a household water source was evaluated assuming exposure occurs in a residential setting.

Section in 9/17/12 EPA Draft	Language in 9/17/12 EPA Draft	Reason for Objection	LWG-Proposed Revision
5.2.8	Use of surface water as a source of household water for drinking and other domestic uses was evaluated using data from five transect and 15 single point sampling locations, as well as averaged over a Study Area-wide basis.	• Does not include a key assumption: "It is essential that presenters not only communicate the results of the assessment by addressing each of the descriptors where appropriate, but that they also communicate their confidence that these results portray a reasonable picture of the actual or projected exposures. This task will usually be accomplished by frankly commenting on the key assumptions and parameters that have the greatest impact on the results, the basis or rationale for choosing these assumptions/parameters, and the consequences of choosing other assumptions." EPA, Guidance for Risk Characterization, III.A (1995).	Use of untreated surface water as a source of household water for drinking and other domestic uses was evaluated using data from five transect and 15 single point sampling locations, as well as averaged over a Study Area-wide basis.
6.2.2.3	The evaluation of surface water as a domestic water source is based on the assumption that surface water is drawn from the Study Area.	• Does not fully describe assumption: *Id.*	The evaluation of surface water as a domestic water source is based on the assumption that untreated surface water is drawn from the Study Area.

Table 6

Table 6: LWG Response to Fish Consumption Studies Cited by EPA

Study Cited by EPA	Rates Cited by EPA	LWG Response
2011 Exposure Factors Handbook	42 g/day (95th percentile)	The Mayfield 2007 study, which provides the basis for the rate cited by EPA, presents the mean ingestion rate of 10 g/day and the 90th percentile rate of 23 g/day, in addition to the 95th percentile of 42 g/day. Although the study characterizes the fisher population as "recreational", the study is based on a creel survey, which could include subsistence fishers in addition to recreational fishers. It is also worth noting that over a third of the fish caught and consumed were anadromous fish. The study concludes that the use of US EPA default consumption rates may ***overestimate*** exposure for King County freshwater anglers.
Washington Department of Ecology, Supplemental Information to Support Fish Consumption Rates Technical Support Document (July 2012)	42 g/day to 221 g/day (95th percentile)	The rates cited are specifically for marine fish consumption. The 95th percentile rates cited in the same study for freshwater fish consumption range from 30 g/day to 57 g/day for adult consumers.
Statistical Analysis of National and Washington State Fish Consumption Data	115 g/day (90th percentile) and 217 g/day (99th percentile): 2003-2006 NHANES 43 g/day (95th percentile) and 72 g/day (99th percentile): Based on licensing in Washington	The consumption rates reported for the 2003-2006 NHANES survey are specifically for consumers only. The NHANES survey was conducted over 2 days. Consumers were identified based on consumption of fish-containing foods during those two days only. As discussed in the study cited by EPA, the NHANES survey does not account for day-to-day variation in consumption and considers people who did not eat fish-containing foods those 2 days as non-consumers. The 43 g/day and 72 g/day rates are actually derived using the National Cancer Institute (NCI) methodology applied to the 2003-2006 NHANES data. These rates are not based on licensing in Washington. In fact, the study cited by EPA specifically states "this report does not include fish consumption rates based on the NHANES survey for consumption of locally harvested fish". The study discusses the approximate percentage of the population with licenses, but states "This is not an estimate of the percentage of consumed fish that are locally harvested". As a note, the 90th percentile using the NCI methodology is 32 g/day.

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